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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/876,645	06/07/2001	Mingqiu Sun	884.439US1	9088

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EXAMINER

TANG, KENNETH

ART UNIT PAPER NUMBER

2127

DATE MAILED: 03/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/876,645	Applicant(s) SUN ET AL.	
	Examiner Kenneth Tang	Art Unit 2127	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/18/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the Remarks on 11/18/04. Applicant's arguments have been fully considered but were not found to be persuasive.
2. Claims 1-36 are presented for examination.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: "one or more execution-requesting clients" and "plurality of workflow engines". It is not made explicitly clear in the claim language whether the first client is linked only to the first workflow engine, and the second client linked only to the second workflow engine, and so on. In other words, it is not clear whether or not there is a workflow engine for every client. It is unclear whether or not the first client can communicate with the second workflow engine. It is not clear whether or not there is the same number of workflow engines as clients.
4. Claims 9, 17, 22, 27, and 32 are rejected as being incomplete for omitting essential structural cooperative relationships of elements for the same reasons as stated directly above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Campbell et al. (hereinafter Campbell) (US 2001/0024497 A1) in view of Nakamura et al. (hereinafter Nakamura) (US 2001/0027477 A1).

6. As to claim 1, Campbell teaches a method to be performed by a data processing system comprising:

providing distributed queuing of workflows (workflow manager), whose execution is requested by one or more execution-requesting clients, among a plurality of workflow engines (page 5, [0084], page 6, [0085]);

Campbell fails to explicitly teach if a workflow is completed by a first workflow engine for an execution-requesting client, sending an explicit and delayed acknowledgement to the execution-requesting client, else assigning the workflow to a second workflow engine.

However, Nakamura teaches determining whether a first workflow is completed by a first client/terminal. If complete, a notification (this one is delayed acknowledgement because it doesn't occur until completion of the requested workflow) sent. And if not completed, then a different notification is sent so that the second terminal/client can be assigned the workflow (page 1, [0011]-[0012]). It would have been obvious to one of ordinary skill in the art at the

Art Unit: 2127

time the invention was made to include if a workflow is completed by a first workflow engine for an execution-requesting client, sending an explicit and delayed acknowledgement to the execution-requesting client, else assigning the workflow to a second workflow engine to the existing system and method of Campbell because it provides a means for controlling flows to a workflow controlling system in which there are workflows among a plurality of participants (*page 1, [0007]*).

7. As to claim 2, Campbell teaches wherein providing is performed by a load manager (workflow manager) (*page 5, [0084], page 6, [0085]*).

8. As to claim 3, Campbell teaches wherein the load manager comprises a commercially available middleware product (*page 15, [0208]*).

9. As to claim 4, Nakamura teaches wherein the explicit and delayed acknowledgement is performed by a certified messaging capability (*page 1, [0004]*).

10. As to claim 5, Nakamura teaches certified messaging capability and Campbell teaches that all communication types are workflow enabled and pass through the load manager (workflow manager) (*page 5, [0084]*).

11. As to claim 6, Campbell teaches wherein the load manager comprises a commercially available middleware product (*page 15, [0208]*).

12. As to claim 7, Campbell teaches wherein the certified messaging capability is performed by a certified message receiver forming part of the workflow (*page 1, [0004], page 5, [0084]*).

13. As to claim 8, Nakamura teaches the certified messaging capability sending an explicit and delayed acknowledgement to the execution-requesting client if the workflow is completed by the second workflow engine (*page 1, [0011]-[0012]*).

14. As to claims 9-16, they are rejected for the same reasons as stated in the rejection of claims 1-8, respectively.

15. As to claim 17, it is rejected for the same reasons as stated in the rejection of claim 1. In addition, Campbell teaches the computer operating in a fault-tolerant manner and requesting a workflow execution on behalf of a client (*page 2, [0043] and [0044], page 4, [0061] and [0063]*).

16. As to claims 18-22, they are rejected for the same reasons as stated in the rejection of claims 2, 4, 7, 8, and 17, respectively.

17. As to claim 23, it is rejected for the same reasons as stated in the rejection of claims 1 and 2.

Art Unit: 2127

18. As to claims 24-27, they are rejected for the same reasons as stated in the rejection of claims 4, 7, 8, and 17, respectively.

19. As to claims 28-33, they are rejected for the same reasons as stated in the rejection of claims 2, 4, 7, 8, 17 and 23, respectively.

20. As to claims 34-36, they are rejected for the same reasons as stated in the rejection of claims 4, 7 and 8, respectively.

Response to Arguments

21. *Applicant argues on page 11 the 35 USC 112 2nd rejection based on omitting essential structural cooperative relationships of elements. Applicant points to the written description of the Specification in the paragraphs beginning on page 5, line 27, and on page 6, line 17, respectively.*

In response, the Examiner respectfully disagrees. The 35 USC 112 2nd rejection refers to the claims and not the specification. From MPEP 2172.01:

2172.01 [R-1] Unclaimed Essential Matter

A claim which fails to interrelate essential elements of the invention as defined by applicant(s) in the specification may be rejected under 35 U.S.C. 112, second paragraph, for failure to point out and distinctly claim the invention. See *In re Venezia*, 530 F.2d 956, 189 USPQ 149 (CCPA 1976); *In re Collier*, 397 F.2d 1003, 158 USPQ 266 (CCPA 1968). >But see *Ex parte Nolden*, 149 USPQ 378, 380 (Bd. Pat. App. 1965) ("[I]t is not essential to a patentable combination that there be interdependency between the elements of the claimed device or that all the elements operate concurrently toward the desired result"); *Ex parte Huber*, 148 USPQ 447,

Art Unit: 2127

448-49 (Bd. Pat. App. 1965) (A claim does not necessarily fail to comply with 35 U.S.C. 112, second paragraph where the various elements do not function simultaneously, are not directly functionally related, do not directly intercooperate, and/or serve independent purposes.).

22. *Applicant argues on pages 12-13 that Applicants could find no disclosure in Nakamura concerning sending an explicit and delayed acknowledgement to an execution-requesting client if a workflow is completed by a first workflow engine, else assigning the workflow to a second workflow.*

In response, Nakamura teaches determining whether a first workflow is completed by a first client/terminal. If complete, a notification (this one is delayed acknowledgement because it doesn't occur until completion of the requested workflow) sent. And if not completed, then a different notification is sent so that the second terminal/client can be assigned the workflow (page 1, [0011]-[0012]).

Conclusion

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- **US 2001/0056492 A1 (Bressoud et al.) teaches a data processing system which delays a message until conditions are satisfied (delayed acknowledgement).**

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

Art Unit: 2127


MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (571) 272-3772. The examiner can normally be reached on 8:30AM - 6:00PM, Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kt
3/7/05


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